

A NEW SECTION AND A NEW SUBSPECIES OF *STENOTREMA*

BY ALLAN F. ARCHER

EUCHEMOTREMA, new section.—Those *Stenotremas* lacking a subanal denticle. Penis very short and club-shaped; in length less than half the diameter of the shell. Right pilaster very thick, prominent, and blunt-edged.

This section is intended to include *Stenotrema monodon* (Raekett) and *S. fraternum* (Say) as distinguished from the other species of *Stenotrema*, which belong to the section *Stenotrema* (Rafinesque). The latter differs from *Euchemotrema* in the following ways: Subanal denticle present. Penis more or less slender and irregularly sausage-shaped. Right pilaster slender. The name *Euchemotrema* is suggested by *Chimotrema* (Rafinesque) whose identity is somewhat doubtful (H. A. Pilsbry, Proc. ANSP. 1930: 321, 324).

STENOTREMA FRATERNUM MONTANUM, new subspecies.

This subspecies has the general specific characters of *S. fraternum* and *S. fraternum cavum* (P. & V.). Like the latter it is umbilicate, but differs from it in the following ways:

- | <i>S. fraternum montanum</i> | <i>S. fraternum cavum</i> |
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| 1. Shell having an angulated periphery (excepting the last $\frac{1}{4}$ whorl). | 1. Shell having a rounded or bluntly rounded periphery. |
| 2. A brown peripheral band present. | 2. Brown peripheral band absent. |

The shell of *montanum* is more or less lenticular, and due to this fact and to the presence of the brown peripheral band it has been confused with *S. monodon cinctum* (Lewis). In superficial aspect the two are quite convergent. The differences are as follows.

- | <i>S. fraternum montanum</i> | <i>S. monodon cinctum</i> |
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| 1. Distal end of parietal lamella not strongly slanting into the aperture. | 1. Distal end of parietal lamella strongly slanting into the aperture. |

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| 2. Surface of the basal sinus (analogous to the interdenticular sinus) convex. | 2. Surface of the basal sinus flattened, dished. |
| 3. Nuclear whorl finely beaded. | 3. Nuclear whorl axially striated. |
| 4. Left pilaster of penis simple, slender. | 4. Left pilaster of penis thickened, indented; joined to the right pilaster below the mid zone by a commissure. |

Holotype of *montanum*: Diameter 11.2 mm.; height 6.0 mm. Paratypes; Diameter 10.5–11.4 mm.; height 5.9–6.8 mm.

Holotype.—Ala. Mus. Nat. Hist., no. 101, 2800 feet elevation, knob at CCC Camp NP-4, Smokemont, Swain County, North Carolina. Paratypes in the Alabama Museum and the ANSP.

Remarks.—This subspecies is confined to the southern part of the Blue Ridge Physiographic Province, chiefly in the Smoky and Black Mountains of western North Carolina and east Tennessee. It is apparently isolated from the main body of *S. fraternum*, and seems to be a definite geographical race. Its recorded range is: Towns Co., Georgia; Cherokee, Mitchell, and Swain counties, North Carolina; Blount Co., Tennessee.

Habitat.—This snail evidently occurs between 2000 and 3000 feet in the lower montane forests. Its plant cover is chiefly xeric oak-hickory. It lives in hollows in humus under the leaf carpet and under quartzite slabs. It is also found under fallen bark around sprouting chestnut stumps and around the boles of white oak (*Quercus alba*) and tulip poplar.

A STUDY OF THE LIFE CYCLE OF THE FRESH-WATER MUSSEL, *ANODONTA GRANDIS*, IN NEW ORLEANS¹

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Although the life cycle of *Anodonta grandis* Say has been studied in certain details in Illinois by another worker,² it was

¹ Presented (in part) at the Eighty-fifth Annual Meeting of the New Orleans Academy of Sciences, Tulane University, March 25, 1938.

² M. E. Tucker, 1928. Studies of the life cycles of two species of fresh-water mussels belonging to the genus *Anodonta*. Biol. Bull. 54: 117–127.